

Instructions

Appendix H: HHS EXISTING BUILDING EVALUATION AND PRIORITIZATION MATRIX

The following instructions are designed to help in the collection and recording of sustainable actions achieved on an applicable capital asset. The tool is designed to collect and measure the Department's achievement in meeting the Guiding Principles as described in Executive Order 13423 and the Energy Independence and Security Act of 2007 (EISA). There are four (4) building attributes that are evaluated and rated under this evaluation and prioritization matrix which follows the Guiding Principles and can score up to 420 points. Additional points can be achieved through non-Guiding Principle and bonus achievements that can add up to 250 points. The total score achieved will form the Sustainability Index (SI). The maximum SI is a rating of 670 points:

Guiding Principle Achievements

- A. Energy Performance (120 points)
- B. Protect and Conserve Water (100 points)
- C. Enhance Indoor Air Quality (100 points)
- D. Environmental Impact of Materials (100 points)

Non-Guiding Principle Achievements

- E. Economics (100 points)
- F. Conformance with Local Environmental Requirements (100 Points)

Bonus

- Renewable Energy (30 points)
- Maintain/Restore Hydrology (20 points)

The SI will be one of the elements along with Mission Dependency and Facility Conditions Index used to support decision making.

- General Information
 - A building is exempt from having to complete this tool if the building receives a third party green building certification from LEED, Green Globes or an ANSI-accredited standards developer and the contract for design was awarded prior to October 1, 2008. The building is considered meeting the intent of the Guiding Principles (100%).
 - EISA section 432, paragraph 3(A) requires a comprehensive energy and water evaluation be completed every 4 years. Currently building condition assessments are required on buildings every five years. It is suggested that to save money and effort that the building assessment and energy and water evaluations be completed concurrently on a four year cycle.

- Buildings in the existing sustainable buildings inventory are those owned assets 5,000 gross square or more with the exception of housing. See Appendix L and Appendix D of the Sustainable Buildings Implementation Plan (SBIP) December 31, 2007 for asset types and definitions of applicable buildings.
 - In reporting to OMB, additional credit can be achieved for facilities smaller than 5,000 gross square feet. Any facility less than 5,000 gsf that meets the guiding principles 100% can be included in the total square footage of buildings that meet the criteria but the building does not have to be added to applicable square footage of the Department.
 - All projects as defined in the SBIP with design awards after October 1, 2008 must incorporate the Guiding Principles 100%.
 - Highlight each achievement and record the score on Appendix H. An asset can achieve full compliance with the Guiding Principles with a score of 420 and can achieve a top score of 670 by achieving a 100% score for Non-Guiding Principle achievements.
 - The scores under the Building Condition Scoring Criteria are cumulative. The achieved score of 20 includes that accomplished under the 10 and the score of 30 includes that achieved under the 20 and 10. The high score achieved under the criteria will have achieved every part within the scoring criteria.
- Asset Information on EB Assessment Tool
 - Include the asset information as recorded in ARIS.
 - **Energy Performance (120 points)**
 - Energy Efficiency
 - Established an energy usage baseline using historical data (2003 EUI)
 - Established an energy usage baseline using ASHRAE.IESNA 90.1-2004
 - Evaluated the buildings energy use with the Energy Star Portfolio Manager (ESPM) located at:
http://www.energystar.gov/index.cfm?c=eligibility.bus_portfoliomanager_eligibility
 - An Energy Conservation Plan (ECP) shall consist of an estimate of the future energy performance of the building and a specific description of the energy saving projects or practices that will reduce the Energy Usage Intensity (EUI). The evaluation of each project shall use life cycle costing. The ECP shall include a schedule listing the projects and an estimated time of completion to meet the reduction of EUI goals.
 - Measurement and Verification
 - *E.O. 13423, sec. 2(a)* Metering. To the maximum extent practicable, agencies shall install metering devices that measure consumption of potable water, electricity, and thermal energy in Federal buildings and other facilities and grounds. Data collected shall be incorporated into

Federal tracking systems and be made available to Federal facility managers. Agencies should consider inclusion of metering requirements in all ESPCs and UESCs, as appropriate.

- EISA Section 434(b), Metering, amends Section 543(e)(1) of NECPA (42 U.S.C. 8253(e)(1)) by inserting after the second sentence the following: "Not later than October 1, 2016, each agency shall provide for equivalent metering of natural gas and steam, in accordance with guidelines established by the Secretary under paragraph (2)."
- The High Performance Buildings Database website is:
<http://www.eere.energy.gov/buildings/database/>
- Renewable Energy
 - A 30 point bonus is achievable with the installation of an on site renewable energy project and entering a renewable energy purchase contract. Applicable systems would include solar, wind, geothermal, low-impact hydro, biomass and bio-gas strategies.
- **Protect and Conserve Water (100 points)**
 - Verify the installation of water conserving measures for indoor and outdoor systems.
 - Verify a water management plan and FEMP best management practices for water conservation are in place.
 - Verify installation of water meters or estimate annual building water use baseline.
 - Verify use of water efficient landscape or use of recycled water for irrigation.
 - Verify if cost effective measures are in place for process water for equipment, cooling towers, boilers, etc.
 - Where site redevelopment such as a paving project occurs, a 20 point bonus is achievable when the project maintains or restores the pre-development hydrology of the site with regard to temperature, rate, volume, and duration of flow using site planning, design, construction, and maintenance strategies. (EISA Section 438)
- **Enhance Indoor Environmental Quality (100 points)**
 - The measurement of ventilation, thermal comfort, moisture control, lighting (controlled and natural) and low emitting materials.
 - Verify thermal comfort and indoor air quality for building occupants.
 - Verify building design ventilation rates and building system performance.
 - Verify the building has an established and implemented moisture control strategy.
 - Assess if location of manual light, glare and dimming controls are accessible to building occupants or calculate percentage of space having a minimum natural daylight factor of 2%.
 - Verify a procurement policy has been developed and implemented for use of low emitting materials for maintenance, cleaning, and pest management.

- **Environmental Impact of Materials (100 points)**
 - Confirm policies are in place to ensure use of these materials/products when cost and performance expectations can be met.
 - Record the effort in meeting recycled content, biobased content, construction waste, and ozone depleting compounds for both existing building renovations and operations and maintenance activities.
- **Economics (100 points)**
 - Record the cost and payback in achieving and meeting the Guiding Principles as a measure of a facility Replacement Value and Life Cycle Cost.
- **Conformance with Local Environmental Requirements: (100 points)**
 - **Environmental Regulations (50 points):**
 - To achieve the highest score, a facility/building manager must demonstrate that there are no violations of environmental regulations. This can only be done if building/facility has documented procedures in place to identify and account for applicable environmental requirements.
 - It is expected that this will require that facility managers, environmental managers (including Environmental Management Systems managers for appropriate facilities that have an official EMS) and supervisors to coordinate and develop the plans and procedures to address conformance. This aspect is required regardless of whether the facility has an EMS or not.
 - Points will be awarded under this attribute progressively from (0 points) for non-compliant or lacking procedures and evaluations protocols; to, full compliance with applicable federal, state and local environmental regulations (50 points).
 - Examples of potential violation include:
 - lack of controls on to prevent exceedance of discharge limits or
 - failure to meet discharge limits from a process or batch discharge such as cage wash systems or cleaning of pipes,
 - potable water cross connections,
 - cross connections with sanitary or stormdrain systems,
 - exceedance of air emission from regulated sources such as emergency generators, boilers, fume hoods or ,
 - improper storage of hazardous chemicals,
 - non-compliance with fuel storage tank (above ground and underground) provisions,
 - failure to maintain proper operating logs for regulated equipments and mechanical systems
 - **Environmental Management System (EMS) (50 points)**

- Executive Order (EO) 13148 required all Federal Agencies to determine ‘appropriate’ facilities for implementing EMS. EO 13423 requires that EMSs serve as the primary mechanism for achieving compliance with all aspects of the order.
- Not all facilities are required to have an EMS and if this is the case, then the full 50 Points will be scored for this attribute.
- In the case where an EMS is required (HHS declared appropriate facility), points will be awarded on a progressive basis from 0 points to a maximum of 50.

To achieve favorable ratings in this area, it is expected that the facility/building management will have met with the Environmental Management System (EMS) manager and implemented requirements/procedures to address applicable sustainable practices as required by Executive Order 13423 through the facility/organization’s EMS, including procedures for setting objectives and targets as appropriate, monitoring, training, and management review.